

## **REMARKS**

Claims 1-20 are pending. Applicants appreciate the Examiner's indication that Claims 1-17, 19, and 20 include allowable subject matter.

Allowable Claim 1 has been rewritten in independent form to include all of the limitations of the base claim and any intervening claims. Accordingly, newly independent Claim 1 is allowable. Claims 2-10 depend from allowable independent Claim 1 and are allowable for the same and other reasons.

Allowable Claim 11 has been rewritten in independent form to include all of the limitations of the base claim and any intervening claims. Accordingly, newly independent Claim 11 is allowable. Claims 12-17 depend from allowable independent Claim 11 and are allowable for the same and other reasons.

### **Comment Regarding Claim Dependencies**

In the Office action, the Examiner references MPEP § 608.01(n) and notes that “[a] claim which depends from a dependent claim should not be separated by any claim which does not also depend from said dependent claim.” However, this comment does not appear to include any request for amendment. Rather, this comment appears to be instructive and general in nature. Moreover, as explained above, Claims 1 and 11 have been rewritten in independent form, effectively re-ordering the claims in the present application. Accordingly, withdrawal of any objections associated with the claim dependencies is respectfully requested.

### **35 U.S.C. §103 Rejection**

Claim 18 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over United States Publication No. 2003/0102113 (the “Memory Publication”) in view of United States Patent No. 5,904,205 (“Grenier”). Reconsideration of the rejections is respectfully requested.

Claim 18 recites a transcritical cooling system comprising a working fluid flow loop, a compressor connected to the working fluid flow loop to receive the working fluid therefrom and to compress the working fluid to a supercritical pressure for delivery to the working fluid flow loop, and a brazed plate heat exchanger connected to the working fluid flow loop to receive the working fluid therefrom and return the working fluid thereto, the brazed plate heat exchanger including a plurality of brazed, stacked plate subassemblies, each of the stacked plate

subassemblies being spaced apart, defining high pressure flow paths for the working fluid, and being interleaved with a second set of flow paths between the subassemblies for another fluid to transfer heat between the working fluid and the second fluid.

The rejection correctly acknowledges that the Memory Publication “fails to specifically disclose the brazed heat exchanger 10 as being a brazed plate heat exchanger with interleaved brazed plate subassemblies as claimed in the instant application.” Also, the Memory Publication does not teach or suggest a transcritical cooling system including, among other things, a brazed plate heat exchanger including a plurality of brazed, stacked plate subassemblies, each of the stacked plate subassemblies being spaced apart, defining high pressure flow paths for the working fluid, and being interleaved with a second set of flow paths between the subassemblies for another fluid to transfer heat between the working fluid and the second fluid. Rather, the heat exchanger 10 of the Memory Publication includes a number of identical tubes 28 and a number of identical fins 30 positioned between each of the tubes 28 at constant and repeated intervals. For these and other reasons, the Memory Publication does not teach or suggest the subject matter of Claim 18.

Grenier does not cure the deficiencies of the Memory Publication. Specifically, Grenier does not teach or suggest a transcritical cooling system including, among other things, a brazed plate heat exchanger connected to the working fluid flow loop to receive the working fluid therefrom and return the working fluid thereto, the brazed plate heat exchanger including a plurality of brazed, stacked plate subassemblies, each of the stacked plate subassemblies being spaced apart, defining high pressure flow paths for the working fluid, and being interleaved with a second set of flow paths between the subassemblies for another fluid to transfer heat between the working fluid and the second fluid. The heat exchanger of Grenier includes no such subassemblies. Rather, as shown in Figs. 3-6, Grenier teaches away from such a construction. More specifically, the heat exchanger of Grenier includes a single stack of equally spaced, parallel brazed plates defining a number of parallel flat passages 20-1, 20-2, 23-1, 23-2. Each of the parallel passages 20-1, 20-2, 23-1, 23-2 is defined between two adjacent and equally spaced plates. Fig. 7 of Grenier discloses another configuration of a single stack of equally spaced, parallel brazed plate fins having an S-shaped bar inserted into the stack of parallel plates to define different zones of the uniformly constructed stack. For these and other reasons, Grenier does not teach or suggest the subject matter of Claim 18.

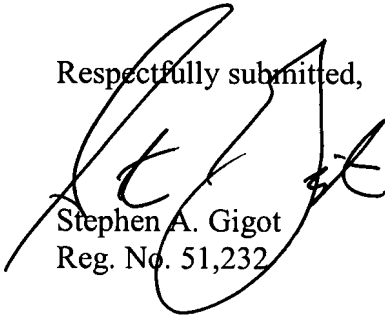
In summary, the Memory Publication and Genier, alone or in combination, do not teach or suggest the modification suggested by the Examiner and, in fact, the references teach away from such a combination. It is improper to combine references where the references teach away from such a combination. In re Grasselli, 713 F.2d at 743, 218 U.S.P.Q. at 779. Therefore, Applicants respectfully submit that the Examiner has failed to present a *prima facie* case of obviousness of Claim 18 based upon the prior art as required by 35 U.S.C. § 103. Accordingly, independent Claim 18 is allowable.

### **CONCLUSION**

In view of the foregoing, Applicants respectfully request entry of the above amendments and allowance of Claim 18 and allowable Claims 1-17, 19, and 20.

The undersigned is available for telephone consultation during normal business hours.

Respectfully submitted,



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